

REMARKS

This Amendment amends claims 1, 7, 19, and 21 in accordance with the original disclosure. Support for the claim amendments is found, for example, in Figs. 2, 4, and 7 and in the specification at paragraphs 0042-0045. Claims 1-12, 15, 18, 19, 21, and 22 remain in this application.

Allowable Subject Matter

In paragraph 6 of the Office Action, the Examiner states that claims 9, 15, 18, and 22 are allowable.

Applicant has amended the dependency of claim 19 from claim 1 to allowable claim 18. Therefore, claim 19 is also believed to be allowable.

Obviousness-type Double Patenting Rejection

Claims 1-10, 12, and 15 stand rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-20 of U.S. Patent No. 6,352,278. Applicant submits concurrently herewith a Terminal Disclaimer to overcome this double patenting rejection. Therefore, reconsideration of the rejections of claims 1-10, 12, and 15 is respectfully requested.

Rejections Under 35 U.S.C. § 103(a)

(a) Claims 1-5, 7, 8, 10, 12, 19, and 21

Claims 1-5, 7, 8, 10, 12, 19, and 21 stand rejected for obviousness over the teachings of U.S. Patent No. 5,071,153 to Duncan in view of the teachings of U.S. Patent No. 943,052 to Tunis. In view of the above amendments and the following remarks, reconsideration of these rejections is respectfully requested.

Claim 1, as amended, is directed to a tow bar assembly including at least one elongated frame member. The frame member has a first member and a second member movable relative to the first member. The assembly further includes a locking device for releasably locking the first and second members in an extended position. The locking device includes a movable member adapted to extend between and contact the first and second members to maintain the first and second members in a locked relationship. A high leverage release device is mounted on one of the members to move the movable member to permit

slidable movement between the first and second members. The movable member is a pin, with the pin connected to a non-resilient latch plate. A spring biases the latch plate toward the first member. The release device includes a lever having a projection. The lever is pivotally mounted on one of the first and second members and the release device is configured such that pivotal movement of the lever causes the projection to contact the latch plate to move the movable member against the bias of the spring to unlock the first and second members.

Duncan is directed to a vehicle tow bar and includes (as shown particularly in Figs. 4 and 5) a locking pin 44 that extends through the bar 32 and box beam 34. The locking pin 44 has a cap 50 at one end and a coil spring 52 that abuts a wire bail 54. An enlarged head 60 is provided on one end of the locking pin 44 for grasping by the fingers of an operator to manually retract the locking pin from the bar 32 (Duncan at column 3, line 50 to column 4, line 3). Thus, to release the Duncan tow bar, the head 60 must be grasped by a user and pulled to disengage the pin 44 from apertures in the bar. Therefore, the Duncan device does not provide a high leverage release mechanism as in the claimed invention. However, the Examiner relies upon Tunis for teaching an alternative release mechanism.

Tunis discloses a coupling that can be attached to the pitman of a windmill and connected to the piston rod of a pump. The coupling includes a housing 1 having a guide-way 5 with a retaining bolt 10 slidable in aligned openings 8 and 9. The bolt 10 is pivotally connected to a resilient tongue 6 attached to the top of the coupling housing 1. A lever 13 is pivotally mounted on the housing 1 and receives the resilient tongue 6. The lower end of the lever 13 has a shoulder 15 such that movement of the lever pushes on the resilient tongue 6 to pivot the retaining bolt 10 out of the openings 8 and 9.

Firstly, Applicant does not believe one of ordinary skill in the tow bar art would look to a windmill coupling (Tunis) for modifying the latch mechanism of a tow bar (Duncan). Moreover, even if one were to combine the Tunis windmill coupling with the Duncan tow bar, it would not arrive at the claimed invention. Specifically, the Tunis coupling utilizes a flexible, resilient tongue 6 pivotally connected to a retaining bolt 10. The resilient tongue 6 biases the retaining bolt 10 toward the openings 8 and 9. However, in the claimed invention, the pin 9 depends from a non-resilient, i.e., non-flexible, latch plate 20. As shown for example in Fig. 2, a spring 47 biases the latch plate 20 downwardly to bias the pin 9 toward the holes in the first and second member. The use of a non-resilient latch plate

20 with a pin 9 depending therefrom and a separate spring 47 provides a high leverage release mechanism which allows the tow bar assembly of the invention to be released even under stress. For example, when a vehicle is parked on a hill and it is desired to unhook the tow bar assembly, conventional release mechanisms, such as the manual mechanism in Duncan, are not typically able to be released due to the considerable tension forces on the tow bar assembly. The Tunis flexible tongue 6 does not overcome this deficiency. Utilizing a high leverage release device of the invention having an increased mechanical advantage allows the tow bar assembly of the invention to be released even under stress. Neither Duncan nor Tunis, either alone or in combination, fairly teaches or suggests the high leverage release tow bar assembly of the invention as claimed in claim 1. Reconsideration of the rejection of claim 1 is respectfully requested.

Claims 2-5 depend from, and add further limitations to, claim 1. Since these claims depend from a claim believed to be in condition for allowance, these claims are also believed to be in condition for allowance.

Independent claim 7 is directed to a tow bar assembly comprising, *inter alia*, first and second telescopic members each having at least one opening. A pin is connected to a non-resilient latch plate and is configured to enter the openings to lock and unlock the first and second telescopic members. The latch plate is biased by a spring and includes a high leverage release means having a lever with a projection. Pivotal movement of the lever causes the projection to contact the latch plate to move the pin against the bias of the spring to unlock the first and second members.

As discussed above, neither Duncan nor Tunis, either alone or in combination, fairly teaches or suggests the tow bar assembly of the invention having a pin connected to a non-resilient latch plate with the latch plate biased by a spring and including a high leverage release means having a lever with a projection configured to contact the non-resilient latch plate to pivot the latch plate and move the pin against the bias of the spring to unlock the first and second members. Therefore, reconsideration of the rejection of claim 1 is respectfully requested.

Claims 8, 10, and 12 depend from claim 7 and are believed allowable for substantially the same reasons as discussed above with respect to claim 7.

Claim 21 is directed to a tow bar assembly that comprises, *inter alia*, a high leverage release means. The tow bar assembly includes a non-resilient latch plate pivotally

mounted on the first member with a pin depending from the latch plate. Bias means urge the latch plate and pin toward openings in the first and second members. The lever actuating means includes a pivoting lever having a projection configured to contact the underside of the latch plate to permit high leverage release of the pin from the openings. The lever actuator means provides a mechanical advantage of at least 10:1.

As described above, neither Duncan nor Tunis, either alone or in combination, fairly teaches or suggests the claimed tow bar assembly having a non-resilient latch plate pivotally mounted on a first member with a pin depending from the latch plate and bias means, e.g., a spring, continually urging the latch plate and pin toward an opening. Nor do these references teach or suggest a high leverage release mechanism providing a mechanical advantage of at least 10:1. Therefore, claim 21, as amended, is believed patentable over the cited prior art and in condition for allowance. Reconsideration of the rejection of claim 21 is respectfully requested.

(b) Claims 6 and 11

Claims 6 and 11 are rejected for obviousness over the teachings of Duncan and Tunis and further in view of the teachings of U.S. Patent No. 2,425,838 to Schultz.

The Duncan and Tunis patents have been described above. The Examiner relies upon Schultz for the teaching of a telescoping tow arm with multiple holes for adjustable locked position of the telescoping members. However, Schultz does not overcome the deficiencies of the Duncan and Tunis combination discussed above with respect to independent claims 1 and 7. Therefore, since claim 6 depends from independent claim 1 and claim 11 depends from independent claim 7, claims 6 and 11 are believed patentable for the same reasons discussed above with respect to claims 1 and 7.

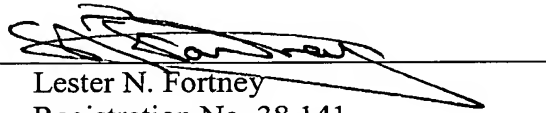
Conclusion

In view of the above amendments and remarks, Applicant believes claims 1-12, 15, 18, 19, 21, and 22 are patentable over the cited prior art and are in condition for allowance. Reconsideration of the objections and rejections of claims 1-8, 10-12, 19, and 21, and allowance of all of claims 1-12, 15, 18, 19, 21, and 22 are respectfully requested.

Respectfully submitted,

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